David R Mcclay

List of Publications by Year
in descending order

97 papers	8,743 citations	66315 42 h-index	45285 90 g-index
119 all docs	119 docs citations	119 times ranked	6380 citing authors

#	Article	IF	Citations
1	A Genomic Regulatory Network for Development. Science, 2002, 295, 1669-1678.	6.0	1,399
2	Guidelines and definitions for research on epithelialâ€“mesenchymal transition. Nature Reviews Molecular Cell Biology, 2020, 21, 341-352.	16.1	1,195
3	The Genome of the Sea Urchin Strongylocentrotus purpuratus. Science, 2006, 314, 941-952.	6.0	1,018
4	A Provisional Regulatory Gene Network for Specification of Endomesoderm in the Sea Urchin Embryo. Developmental Biology, 2002, 246, 162-190.	0.9	319
5	Regulatory gene networks and the properties of the developmental process. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 1475-1480.	3.3	211
6	Cell lineage conversion in the sea urchin embryo. Developmental Biology, 1988, 125, 396-409.	0.9	192
7	Ontogeny of the basal lamina in the sea urchin embryo. Developmental Biology, 1984, 103, 235-245.	0.9	179
8	Three cell recognition changes accompany the ingression of sea urchin primary mesenchyme cells. Developmental Biology, 1985, 107, 66-74.	0.9	151
9	Characterization of the Role of Cadherin in Regulating Cell Adhesion during Sea Urchin Development. Developmental Biology, 1997, 192, 323-339.	0.9	148
10	Evolutionary crossroads in developmental biology: sea urchins. Development (Cambridge), 2011, 138, 2639-2648.	1.2	141
11	Sequential expression of germ-layer specific molecules in the sea urchin embryo. Developmental Biology, 1985, 111, 451-463.	0.9	136
12	FGF signals guide migration of mesenchymal cells, control skeletal morphogenesis and regulate gastrulation during sea urchin development. Development (Cambridge), 2008, 135, 353-365.	1.2	133
13	Evolution of the Wnt Pathways. Methods in Molecular Biology, 2008, 469, 3-18.	0.4	130
14	Activation of pmar1 controls specification of micromeres in the sea urchin embryo. Developmental Biology, 2003, 258, 32-43.	0.9	128
15	Nuclear ?-catenin-dependent Wnt8 signaling in vegetal cells of the early sea urchin embryo regulates gastrulation and differentiation of endoderm and mesodermal cell lineages. Genesis, 2004, 39, 194-205.	0.8	117
16	The Role of Brachyury (T) during Gastrulation Movements in the Sea Urchin Lytechinus variegatus. Developmental Biology, 2001, 239, 132-147.	0.9	116
17	Repression of mesodermal fate by foxa, a key endoderm regulator of the sea urchin embryo. Development (Cambridge), 2006, 133, 4173-4181.	1.2	116
18	Sub-circuits of a gene regulatory network control a developmental epithelial-mesenchymal transition. Development (Cambridge), 2014, 141, 1503-1513.	1.2	109

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19	Vasa protein expression is restricted to the small micromeres of the sea urchin, but is inducible in other lineages early in development. Developmental Biology, 2008, 314, 276-286.	0.9	101
20	Dynamics of Delta/Notch signaling on endomesoderm segregation in the sea urchin embryo. Development (Cambridge), 2010, 137, 83-91.	1.2	87
21	The Snail repressor is required for PMC ingression in the sea urchin embryo. Development (Cambridge), 2007, 134, 1061-1070.	1.2	85
22	Changes in the Pattern of Adherens Junction-Associated Î²-Catenin Accompany Morphogenesis in the Sea Urchin Embryo. Developmental Biology, 1997, 192, 310-322.	0.9	80
23	Target recognition by the archenteron during sea urchin gastrulation. Developmental Biology, 1990, 142, 86-102.	0.9	78
24	p38 MAPK is essential for secondary axis specification and patterning in sea urchin embryos. Development (Cambridge), 2006, 133, 21-32.	1.2	78
25	LvNotch signaling plays a dual role in regulating the position of the ectoderm-endoderm boundary in the sea urchin embryo. Development (Cambridge), 2001, 128, 2221-2232.	1.2	78
26	Comparative Developmental Transcriptomics Reveals Rewiring of a Highly Conserved Gene Regulatory Network during a Major Life History Switch in the Sea Urchin Genus Heliocidaris. PLoS Biology, 2016, 14, e1002391.	2.6	78
27	A genome-wide survey of the evolutionarily conserved Wnt pathways in the sea urchin Strongylocentrotus purpuratus. Developmental Biology, 2006, 300, 121-131.	0.9	76
28	Frizzled5/8 is required in secondary mesenchyme cells to initiate archenteron invagination during sea urchin development. Development (Cambridge), 2006, 133, 547-557.	1.2	76
29	A Molecular Analysis of Hyalinâ€"A Substrate for Cell Adhesion in the Hyaline Layer of the Sea Urchin Embryo. Developmental Biology, 1998, 193, 115-126.	0.9	75
30	The regulation of primary mesenchyme cell migration in the sea urchin embryo: Transplantations of cells and latex beads. Developmental Biology, 1986, 117, 380-391.	0.9	73
31	Spdeadringer, a sea urchin embryo gene required separately in skeletogenic and oral ectoderm gene regulatory networks. Developmental Biology, 2003, 261, 55-81.	0.9	67
32	SpHnf6, a transcription factor that executes multiple functions in sea urchin embryogenesis. Developmental Biology, 2004, 273, 226-243.	0.9	66
33	The canonical Wnt pathway in embryonic axis polarity. Seminars in Cell and Developmental Biology, 2006, 17, 168-174.	2.3	64
34	Chordin is required for neural but not axial development in sea urchin embryos. Developmental Biology, 2009, 328, 221-233.	0.9	64
35	Short-range Wnt5 signaling initiates specification of sea urchin posterior ectoderm. Development (Cambridge), 2013, 140, 4881-4889.	1.2	64
36	The Role of Thin Filopodia in Motility and Morphogenesis. Experimental Cell Research, 1999, 253, 296-301.	1.2	60

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37	Wnt6 activates endoderm in the sea urchin gene regulatory network. Development (Cambridge), 2011, 138, 3297-3306.	1.2	60
38	Genomics and expression profiles of the Hedgehog and Notch signaling pathways in sea urchin development. Developmental Biology, 2006, 300, 153-164.	0.9	59
39	Skeletal Pattern Is Specified Autonomously by the Primary Mesenchyme Cells in Sea Urchin Embryos. Developmental Biology, 1994, 162, 329-338.	0.9	58
40	LvTbx2/3: a T-box family transcription factor involved in formation of the oral/aboral axis of the sea urchin embryo. Development (Cambridge), 2003, 130, 1989-1999.	1.2	56
41	MOLECULAR HETEROCHRONIES AND HETEROTOPIES IN EARLY ECHINOID DEVELOPMENT. Evolution; International Journal of Organic Evolution, 1989, 43, 803-813.	1.1	55
42	Branching out: Origins of the sea urchin larval skeleton in development and evolution. Genesis, 2014, 52, 173-185.	0.8	50
43	Morphogenesis in sea urchin embryos: linking cellular events to gene regulatory network states. Wiley Interdisciplinary Reviews: Developmental Biology, 2012, 1, 231-252.	5.9	46
44	Ingression of primary mesenchyme cells of the sea urchin embryo: A precisely timed epithelial mesenchymal transition. Birth Defects Research Part C: Embryo Today Reviews, 2007, 81, 241-252.	3.6	45
45	Twist is an essential regulator of the skeletogenic gene regulatory network in the sea urchin embryo. Developmental Biology, 2008, 319, 406-415.	0.9	45
46	RhoA regulates initiation of invagination, but not convergent extension, during sea urchin gastrulation. Developmental Biology, 2006, 292, 213-225.	0.9	43
47	Frizzled1/2/7 signaling directs Î²-catenin nuclearisation and initiates endoderm specification in macromeres during sea urchin embryogenesis. Development (Cambridge), 2012, 139, 816-825.	1.2	42
48	Chapter 17 Embryo Dissociation, Cell Isolation, and Cell Reassociation. Methods in Cell Biology, 1986, 27, 309-323.	0.5	41
49	Hedgehog signaling patterns mesoderm in the sea urchin. Developmental Biology, 2009, 331, 26-37.	0.9	41
50	Chromosomal-Level Genome Assembly of the Sea Urchin Lytechinus variegatus Substantially Improves Functional Genomic Analyses. Genome Biology and Evolution, 2020, 12, 1080-1086.	1.1	41
51	LvGroucho and nuclear Î²-catenin functionally compete for Tcf binding to influence activation of the endomesoderm gene regulatory network in the sea urchin embryo. Developmental Biology, 2005, 279, 252-267.	0.9	40
52	Deployment of a retinal determination gene network drives directed cell migration in the sea urchin embryo. ELife, 2015, 4, .	2.8	40
53	Hedgehog Signaling Requires Motile Cilia in the Sea Urchin. Molecular Biology and Evolution, 2014, 31, 18-22.	3.5	39
54	Identification of neural transcription factors required for the differentiation of three neuronal subtypes in the sea urchin embryo. Developmental Biology, 2018, 435, 138-149.	0.9	38

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55	Î±SU2, an Epithelial Integrin That Binds Laminin in the Sea Urchin Embryo. Developmental Biology, 1999, 207, 1-13.	0.9	33
56	Neuronal-glial interactions: Complexity of neurite outgrowth correlates with substrated adhesivity of serotonergic neurons. Glia, 1990, 3, 169-179.	2.5	32
57	Primary mesenchyme cell patterning during the early stages following ingression. Developmental Biology, 2003, 254, 68-78.	0.9	32
58	Developmental single-cell transcriptomics in the <i>Lytechinus variegatus</i> sea urchin embryo. Development (Cambridge), 2021, 148, .	1.2	31
59	The control of<i>foxN2/3</i>expression in sea urchin embryos and its function in the skeletogenic gene regulatory network. Development (Cambridge), 2011, 138, 937-945.	1.2	29
60	Developmental gene regulatory networks in sea urchins and what we can learn from them. F1000Research, 2016, 5, 203.	0.8	27
61	Cell aggregation: Properties of cell surface factors from five species of sponge. The Journal of Experimental Zoology, 1974, 188, 89-101.	1.4	23
62	A new method for isolating primary mesenchyme cells of the sea urchin embryo. Experimental Cell Research, 1987, 168, 431-438.	1.2	23
63	Blocking Dishevelled signaling in the noncanonical Wnt pathway in sea urchins disrupts endoderm formation and spiculogenesis, but not secondary mesoderm formation. Developmental Dynamics, 2009, 238, 1649-1665.	0.8	23
64	Pattern formation during gastrulation in the sea urchin embryo. Development (Cambridge), 1992, 116, 33-41.	1.2	23
65	Neurogenesis in the sea urchin embryo is initiated uniquely in three domains. Development (Cambridge), 2018, 145, .	1.2	22
66	Contribution of hedgehog signaling to the establishment of leftâ€"right asymmetry in the sea urchin. Developmental Biology, 2016, 411, 314-324.	0.9	21
67	New insights from a high-resolution look at gastrulation in the sea urchin, Lytechinus variegatus. Mechanisms of Development, 2017, 148, 3-10.	1.7	21
68	A cortical granule-specific enzyme, B-1,3-glucanase, in sea urchin eggs. Gamete Research, 1987, 18, 339-348.	1.7	20
69	Specification to Biomineralization: Following a Single Cell Type as It Constructs a Skeleton. Integrative and Comparative Biology, 2014, 54, 723-733.	0.9	19
70	Involvement of histocompatibility antigens in embryonic cell recognition events. Nature, 1978, 274, 367-368.	13.7	15
71	Sea Urchin Morphogenesis. Current Topics in Developmental Biology, 2016, 117, 15-29.	1.0	15
72	Spatial and temporal patterns of gene expression during neurogenesis in the sea urchin Lytechinus variegatus. EvoDevo, 2019, 10, 2.	1.3	15

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73	Developmental origin of peripheral ciliary band neurons in the sea urchin embryo. Developmental Biology, 2020, 459, 72-78.	0.9	15
74	Calcium-Dependent and Calcium-Independent Adhesive Mechanisms Are Present During Initial Binding Events of Neural Retina Cells. Journal of Cellular Biochemistry, 1982, 18, 469-478.	1.2	14
75	Gastrulation in the sea urchin. Current Topics in Developmental Biology, 2020, 136, 195-218.	1.0	14
76	Quantitative switch in integrin expression accompanies differentiation of F9 cells treated with retinoic acid. Developmental Dynamics, 1994, 201, 344-353.	0.8	12
77	Methods for Embryo Dissociation and Analysis of Cell Adhesion. Methods in Cell Biology, 2004, 74, 311-329.	0.5	12
78	Left-Right Asymmetry in the Sea Urchin Embryo: BMP and the Asymmetrical Origins of the Adult. PLoS Biology, 2012, 10, e1001404.	2.6	12
79	Cortical granule exocytosis is triggered by different thresholds of calcium during fertilisation in sea urchin eggs. Zygote, 1998, 6, 55-63.	0.5	11
80	Blastomere Isolation and Transplantation. Methods in Cell Biology, 2004, 74, 243-271.	0.5	11
81	Embryonic cellular organization: Differential restriction of fates as revealed by cell aggregates and lineage markers. The Journal of Experimental Zoology, 1989, 251, 203-216.	1.4	9
82	Leftâ€“right asymmetry in the sea urchin. Genesis, 2014, 52, 481-487.	0.8	9
83	Lineage-specific expansions provide genomic complexity among sea urchin GTPases. Developmental Biology, 2006, 300, 165-179.	0.9	8
84	Delayed transition to new cell fates during cellular reprogramming. Developmental Biology, 2014, 391, 147-157.	0.9	8
85	Methodologies for Following EMT In Vivo at Single Cell Resolution. Methods in Molecular Biology, 2021, 2179, 303-314.	0.4	7
86	A Possible Role for Ligatin and the Phosphoglycoproteins It Binds in Calcium-Dependent Retinal Cell Adhesion. Journal of Cellular Biochemistry, 1982, 18, 461-468.	1.2	6
87	Lineages That Give Rise to Endoderm and Mesoderm in the Sea Urchin Embryo. , 1999, , 41-57.		5
88	Stage-specific expression of Î²-1, 3-glucanase in sea urchin embryos and hybrids. The Journal of Experimental Zoology, 1987, 244, 215-222.	1.4	4
89	Conditional specification of endomesoderm. Cells and Development, 2021, 167, 203716.	0.7	4
90	Chapter 9 Surface Antigens Involved in Interactions of Embryonic Sea Urchin Cells. Current Topics in Developmental Biology, 1979, 13 Pt 1, 199-214.	1.0	3

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91	Development of a larval nervous system in the sea urchin. Current Topics in Developmental Biology, 2022, 146, 25-48.	1.0	3
92	Specification of endoderm and mesoderm in the sea urchin. Zygote, 1999, 8, S41-S41.	0.5	2
93	Methods for transplantation of sea urchin blastomeres. Methods in Cell Biology, 2019, 150, 223-233.	0.5	2
94	Perspective on Epithelial-Mesenchymal Transitions in Embryos. Methods in Molecular Biology, 2021, 2179, 7-12.	0.4	1
95	Editorialâ€sea urchin special issue. Genesis, 2014, 52, 157-157.	0.8	0
96	Unlocking mechanisms of development through advances in tools. Methods in Cell Biology, 2019, 151, 37-41.	0.5	0
97	Reprint of: Conditional specification of endomesoderm. Cells and Development, 2021, , 203731.	0.7	0